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| TRANSMITTAL LETTER TO   | ATTORNEY'S DOCKET NUMBER<br>1163-0570PUS1  |   |  |  |  |  |  |  |  |
| DESIGNATED/ELECTED  | U.S. ARPLICATION NO. (if known, see 37 CFR 1.5)  |   |  |  |  |  |  |  |  |
| CONCERNING A SUBMISSION NO.   | INTERNATIONAL FILING DATE  | PRIORITY DATE CLAIMED   |  |  |  |  |  |  |  |
| PCT/JP2004/002379   | 27 February 2004   | PRIORITI DATE GENIMIED  |  |  |  |  |  |  |  |
| TITLE OF INVENTION  | -  |   |  |  |  |  |  |  |  |
| TRANSITION CIRCUIT APPLICANT(S) FOR DO/EO/US  |  |   |  |  |  |  |  |  |  |
| Araki OHNO; Hideyuki OHHASHI; Yukihiro TAHARA and Katsuhisa KODAMA  |  |   |  |  |  |  |  |  |  |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information: |  |   |  |  |  |  |  |  |  |
| 1. X This is a FIRST submission of items concerning a submission under 35 U.S.C. 371.   |  |   |  |  |  |  |  |  |  |
| 2. This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371.                              |  |   |  |  |  |  |  |  |  |
|   | 3. X This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. |   |  |  |  |  |  |  |  |
| The US has been elected (Article 31).   |  |   |  |  |  |  |  |  |  |
| X A copy of the International Application as filed (35 U.S.C. 371 (c)(2))   |  |   |  |  |  |  |  |  |  |
| a. is attached hereto (required on  | a. is attached hereto (required only if not communicated by the International Bureau).   |   |  |  |  |  |  |  |  |
| b. x has been communicated by the   | b. x has been communicated by the International Bureau.  |   |  |  |  |  |  |  |  |
| c. is not required, as the applicati  | c. is not required, as the application was filed in the United States Receiving Office (RO/US).  |   |  |  |  |  |  |  |  |
| 6. x An English language translation of   | An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).   |   |  |  |  |  |  |  |  |
| a. x is attached hereto.  | a. x is attached hereto.   |   |  |  |  |  |  |  |  |
| b. has been previously submitted  | b. has been previously submitted under 35 U.S.C. 154(d)(4).  |   |  |  |  |  |  |  |  |
| 7. X Amendments to the claims of the In   | nternational Application under PCT Artic   | de 19 (35 U.S.C. 371(c)(3))   |  |  |  |  |  |  |  |
| a are attached hereto (required o   | a. are attached hereto (required only if not communicated by the International Bureau).  |   |  |  |  |  |  |  |  |
| b. have been communicated by the  | b. have been communicated by the International Bureau.   |   |  |  |  |  |  |  |  |
| c. have not been made; however,   | c. have not been made; however, the time limit for making such amendments has NOT expired.   |   |  |  |  |  |  |  |  |
| d. x have not been made and will no   | d. x have not been made and will not be made.  |   |  |  |  |  |  |  |  |
| 8. An English language translation of   | An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).  |   |  |  |  |  |  |  |  |
| 9. x An oath or declaration of the invent   | An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).   |   |  |  |  |  |  |  |  |
| An English language translation of Article 36 (35 U.S.C. 371(c)(5)).  | All English language darkstation of the annexes of the international Femiliary Examination Report Since Co.  |   |  |  |  |  |  |  |  |
| Items 11 to 20 below concern docum  | nent(s) or information included:   |   |  |  |  |  |  |  |  |
| 11. x An Information Disclosure Statem  | nent under 37 CFR 1.97 and 1.98.   |   |  |  |  |  |  |  |  |
| 12. X An assignment document for recon  | ding. A separate cover sheet in complic  | ance with 37 CFR 3.28 and 3.31 is included.   |  |  |  |  |  |  |  |
| 13. A preliminary amendment.  |  |   |  |  |  |  |  |  |  |
| An Application Data Sheet under 3   | 37 CFR 1.76.   |   |  |  |  |  |  |  |  |
| 5. A substitute specification.  |  |   |  |  |  |  |  |  |  |
| 6. A power of attorney and/or change  | e of address letter.   |   |  |  |  |  |  |  |  |
| 7. A computer-readable form of the s  | A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 – 1.825.   |   |  |  |  |  |  |  |  |
| 8. A second copy of the published Int   | A second copy of the published International Application under 35 U.S.C. 154(d)(4).  |   |  |  |  |  |  |  |  |
| 9. A second copy of the English lange   | uage translation of the international ap   | oplication under 35 U.S.C. 154(d)(4).   |  |  |  |  |  |  |  |
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|--|--|--|--|---|--|------------------------|----|--|--|
| U.S. APPLICATIO  | NO. (Emoyal see 37 CFR 25) INTERNATIONAL APPLICATION NO. PCT/JP2004/002379 |  |  |   | ATTORNEY'S DOCKET NUMBER 1163-0570PUS1 |                        |    |  |  |
| 20. x Other items or information: Return Receipt Postcard  |  |  |  |   |  |                        |    |  |  |
| PCT/ISA/210; PCT/IB/308 and Seven (7) Sheets of Formal Drawings  |  |  |  |   |  |                        |    |  |  |
|  |  |  |  |   |  |                        |    |  |  |
|  |  |  |  |   |  |                        |    |  |  |
| The following fees have been submitted   |  |  |  |   | CALCULATION                            | S PTO USEONLY          |    |  |  |
| 21. x Basic national fee (37 CFR 1.492(a))   |  |  |  |   | \$ 300.                                |                        |    |  |  |
|  |  | OFD 4 400(-)\  |  |   |  |                        |    |  |  |
| 22. x Examination fee (37 CFR 1.492(c))  If the written opinion prepared by ISA/US or the international preliminary examination report                                       |  |  |  |   |  |                        |    |  |  |
| prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)\$0 All other situations \$200   |  |  |  |   |  | \$ 200.0               | 00 |  |  |
| 23. x Sean   | ch fee (37 CFR   | 1.492(b))  |  |   |  |                        |    |  |  |
|  |  |  | I preliminary examination of PCT Article 33(1)-(4) |   |  |                        |    |  |  |
| Search fee (37 C   | FR 1.445(a)(2)) ha   | as been paid on th   | e international applicatio                         | n to t  | he USPTO as an                         | \$ 400.0               | no |  |  |
| International Searching Authority  |  |  |  |   | the Office or                          | 400.                   | 50 |  |  |
|  |  |  |  |   |  |                        |    |  |  |
|  | TOTAL OF 21, 22  | 2 and 23 =   |  |   |  | \$ 900.0               | 00 |  |  |
|  |  |  | ed in paper over 100 she                           |   |  |                        |    |  |  |
| electron   | nic medium) (37 Cl   | FR 1.492(j)).  | 1.821(c) or (e) or comp                            | -   |  |                        |    |  |  |
| The fee  | is \$250 for each a  | additional 50 shee   | s of paper or fraction the                         | ereof.  |  |                        |    |  |  |
| Total Sheets   | Extra Sheets   | Number of each additional 50 or fraction RATE thereof (round up to a whole number) |  |   |  |                        |    |  |  |
| 45 -100=   | /50 =  |  | x \$250.00   |   |  | \$                     |    |  |  |
| Surcharge of \$130 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)). |  |  |  |   | \$                                     |                        |    |  |  |
| CLAIMS   | CLAIMS NUMBER FILED NUMBER EXTRA RATE                                      |  |  |   | RATE                                   |                        |    |  |  |
| Total claim  |  | 9 - 20 =   | 9 - 20 = x   |   |  | 0.0                    |    |  |  |
| Independent o  |  | 1 - 3 =  |  | ×   |  | 0.00                   |    |  |  |
| MULTIPLE DEPE  | ENDENT CLAIM(S   | i) (if applicable)   |  | +   |  | <b>c</b> 000 (         | 20 |  |  |
| TOTAL OF ABOVE CALCULATIONS =  |  |  |  |   |  | \$ 900.0               | 00 |  |  |
| Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.  |  |  |  |   | fuced by 1/2.                          |                        |    |  |  |
| SUBTOTAL =   |  |  |  |   | \$ 900.0                               | 00                     |    |  |  |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).                            |  |  |  | \$  |  |                        |    |  |  |
| TOTAL NATIONAL FEE =   |  |  |  | \$ 900.00   |  |                        |    |  |  |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +     |  |  | \$ 40.00   |   |  |                        |    |  |  |
|  |  |  |  | \$  |  |                        |    |  |  |
| TOTAL FEES ENCLOSED =  |  |  |  | \$ 940.00   |  |                        |    |  |  |
|  |  | .,   |  |   |  | Amount to be refunded: | \$ |  |  |
|  |  |  |  |   | Amount to be charged                   | \$                     |    |  |  |
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. 940.00 a. X A check in the amount of \$ to cover the above fees is enclosed. to cover the above fees. Please charge my Deposit Account No. 02-2448 in the amount of \$ A duplicate copy of this sheet is enclosed. c. X The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 02-2448 A duplicate copy of this sheet is enclosed. Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038 NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.437(a) or (b)) must be filed an granted to restore the International Application to pending status. SEND ALL CORRESPONDENCE TO: Michael K. Mutter CUSTOMER NUMBER: 02292 NAME July 3, 2006 /smt 29,680 REGISTRATION NUMBER